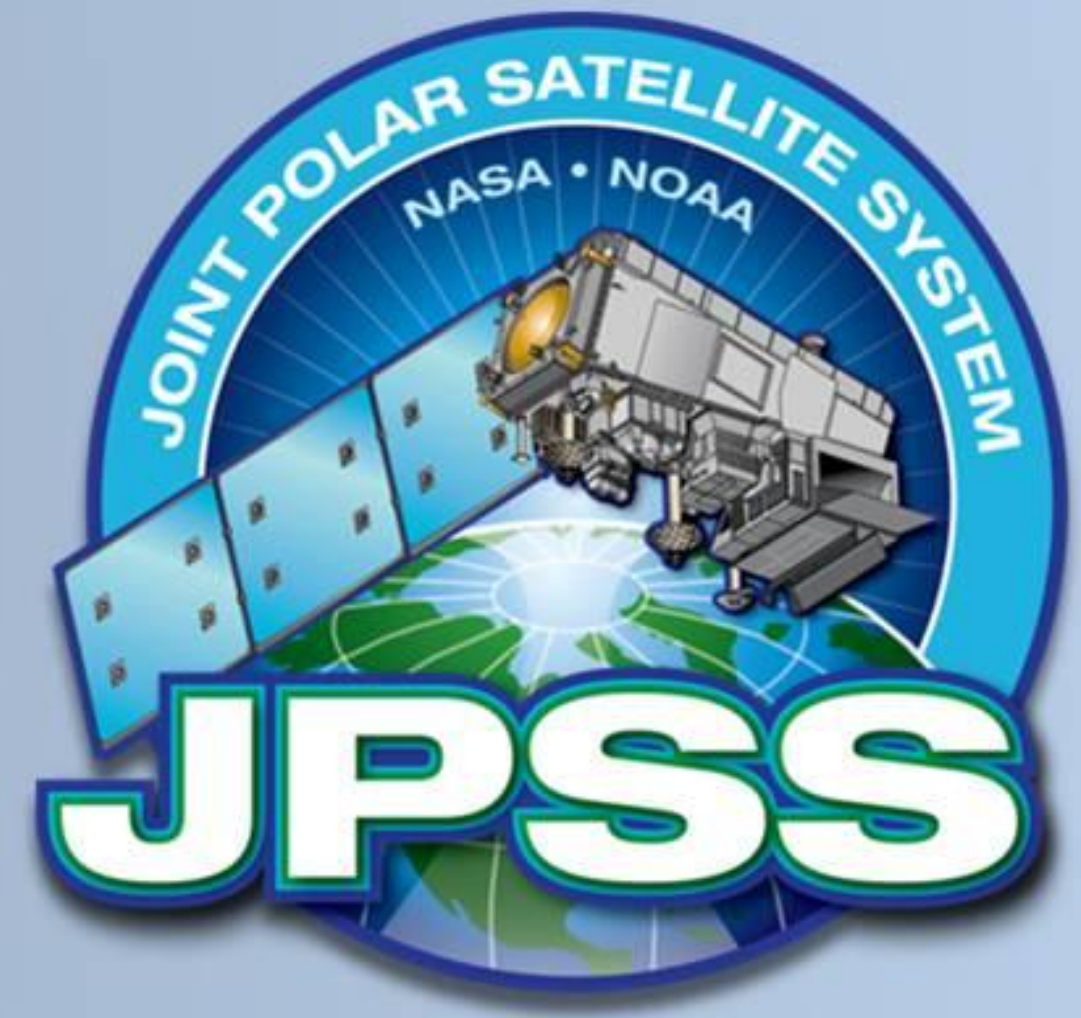




Joint Polar Satellite System (JPSS) Discrepancy Report Action Team (DRAT) Process



Ashley Griffin, Praxis, JPSS DPA

The Joint Polar Satellite System Program Office is the supporting organization for the S-NPP satellite that was successfully put into orbit on October 28, 2011. S-NPP carries the following sensors: VIIRS, CrIS, ATMS, OMPS, and CERES. These instruments study the Earth's weather, oceans, and atmosphere. To ensure the success of the S-NPP mission, problems that are found with the satellite are monitored by a team of scientists and engineers and documented with DRs (Discrepancy Reports).

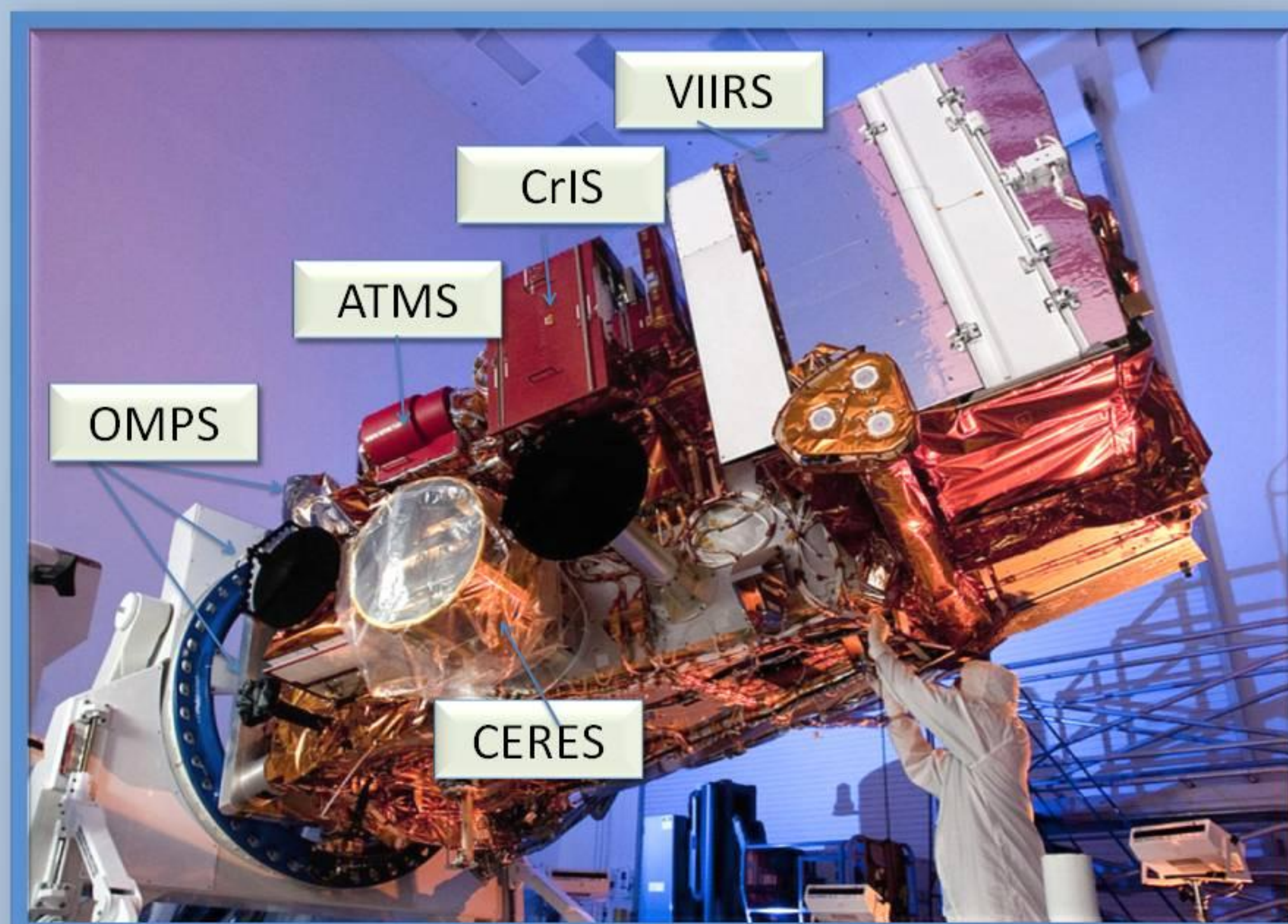
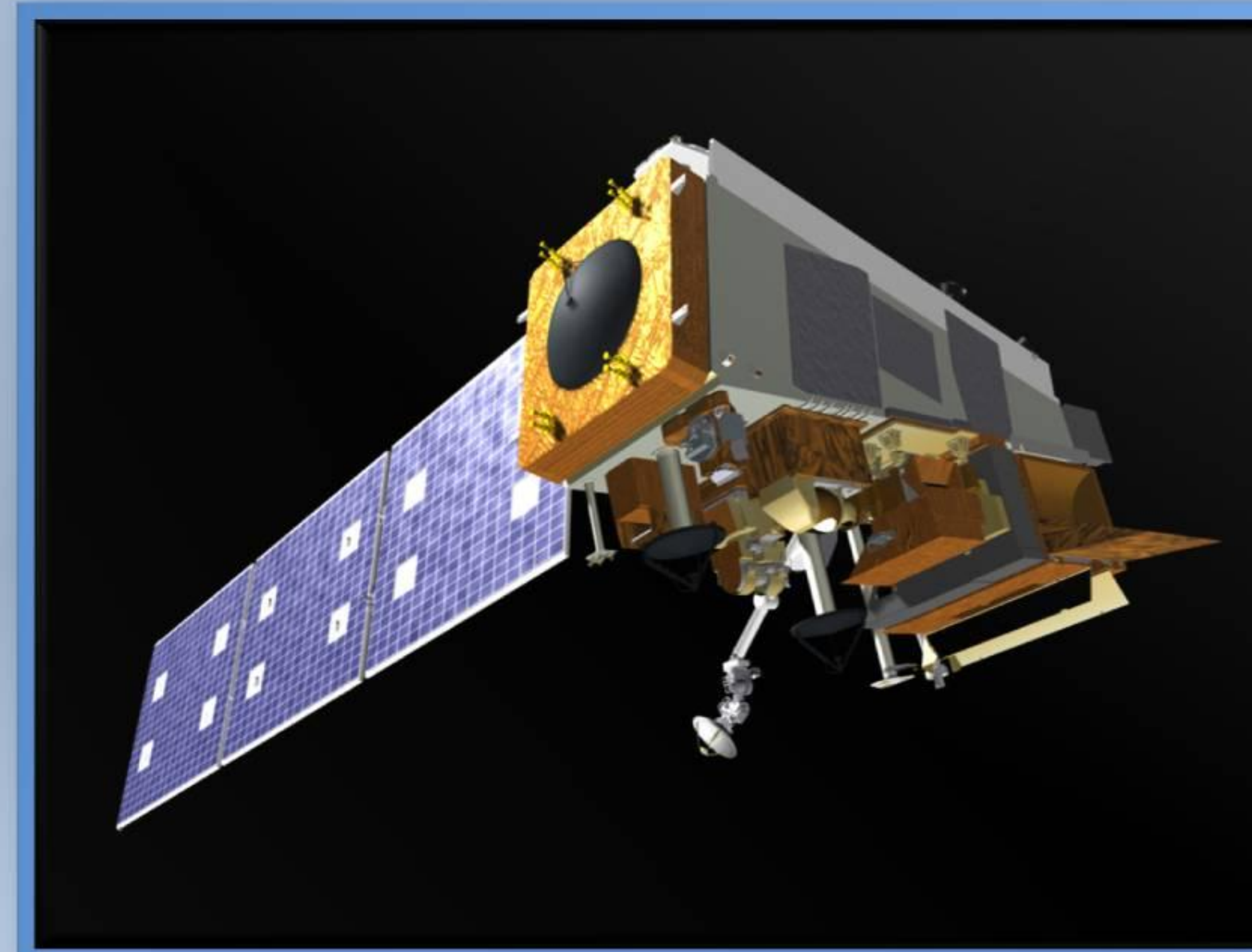


Image courtesy of Ball Aerospace



NPP Satellite

What is a Discrepancy Report (DR)?

DRs are records that document errors in software code or documentation that should be fixed to ensure the success of the S-NPP mission. Each discipline is assigned a JPSS Algorithm Manager (JAM) to help track their DRs and work with the appropriate cal/val team to make sure that each DR is being taken through the algorithm change process so that its issue is solved and the DR is closed.

Participating Organizations

The DR process includes scientists and engineers from all over the United States. They can be found at JPSS in Greenbelt, Maryland, STAR in College Park, Maryland, Raytheon in Aurora, Colorado, Raytheon in Omaha Nebraska, Northrop Grumman in California, NRL Stennis, in Mississippi, NRL in Washington DC, NRL in Monterey, California, MIT-LL in Massachusetts, CIMSS at the University of Wisconsin, CIRA at Colorado State, NASA LaRC in Virginia, and the NSOF in Suitland, Maryland.

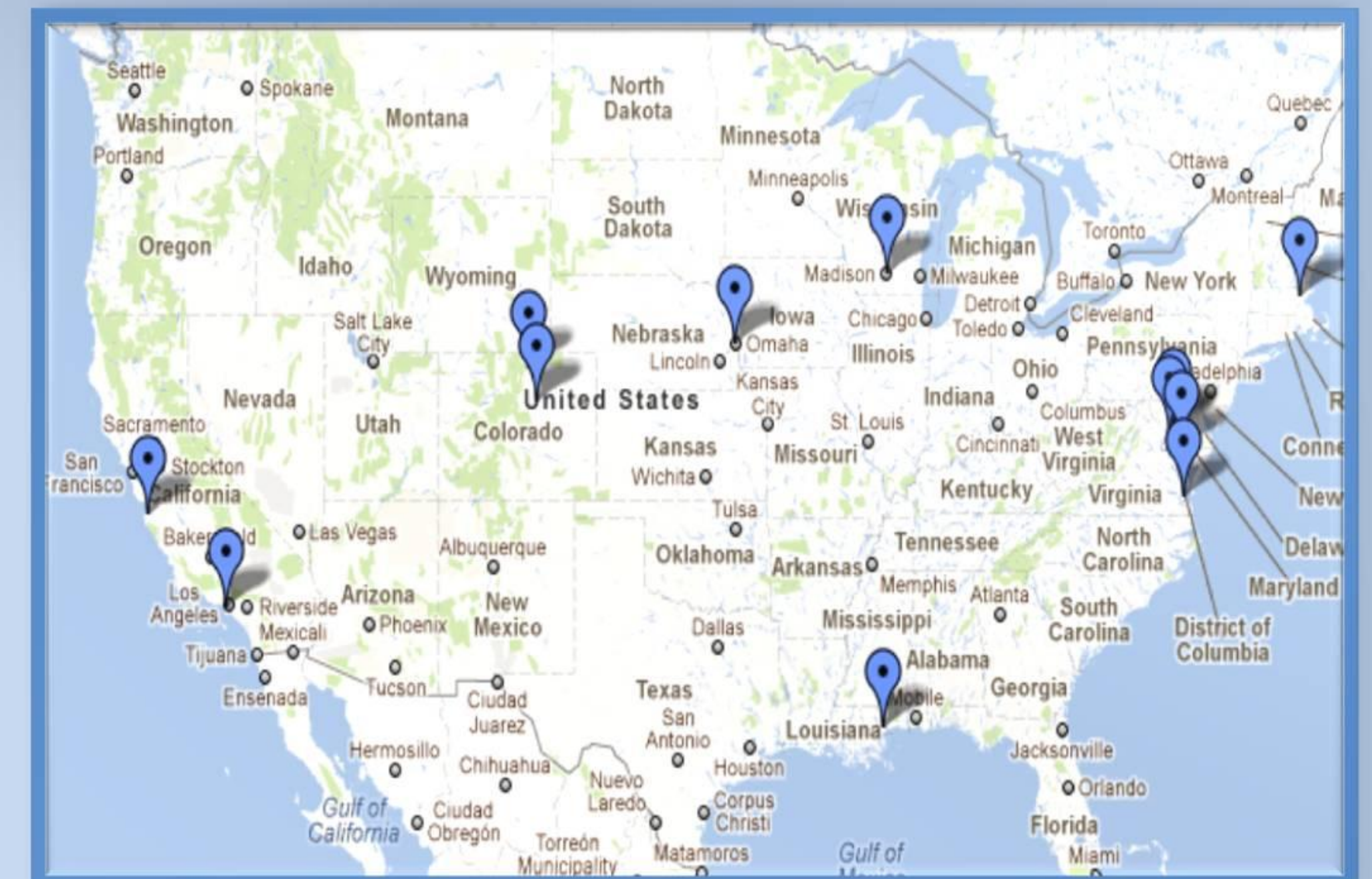
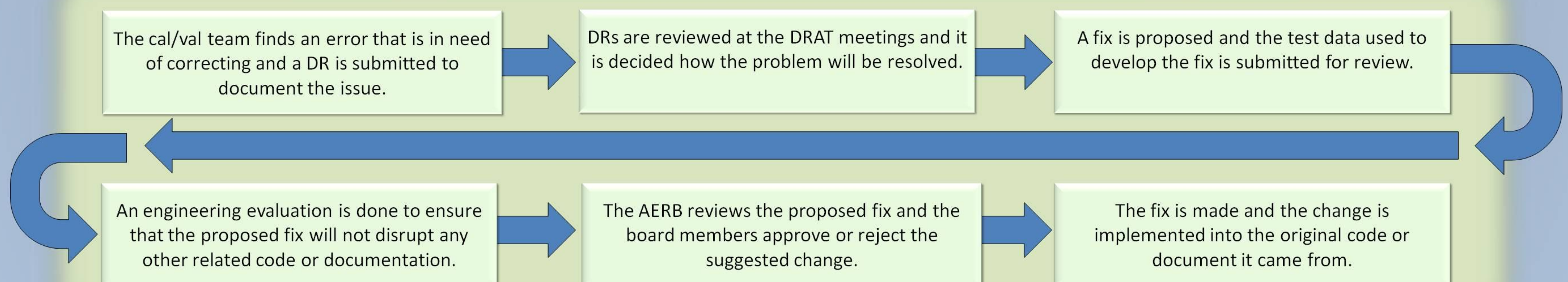


Image courtesy of Google Maps

Discrepancy Report Process



Where are DRs Tracked?

Currently, the DRs are tracked in the DR Tracker on CASANOSA, a website for document and data exchange. In early 2013 the DR tracker will transition to Clearquest.

The Clearquest system's new DR tracker holds all information about the history of the issue that is in need of mitigation, as well as the steps that are being taken by the subject matter experts and other points of contact to ensure that the issue is being fixed.

Acronyms

AERB: Algorithm Engineering Review Board
 Cal/Val: Calibration/Validation
 CIMSS: Cooperative Institute for Meteorological Satellite Studies
 CrIS: Cross-Track Infrared Sounder
 DPE: Data Products and Engineering
 DRAT: Discrepancy Report Action Team
 JPSS: Joint Polar Satellite System
 MIT-LL: Massachusetts Institute of Technology-Lincoln Labs
 NOAA: National Oceanic and Atmospheric Administration
 NSOF: NOAA Satellite Operations Facility
 S-NPP: Suomi National Polar-orbiting Partnership
 VIIRS: Visible Infrared Imaging Radiometer Suite

ATMS: Advanced Technology Microwave Sounder
 CERES: Clouds and the Earth's Radiant Energy System
 CIRA: Cooperative Institute for Research in the Atmosphere
 DPA: Data Products and Algorithms
 DR: Discrepancy Report
 JAM: JPSS Algorithm Manager
 LaRC: Langley Research Center
 NASA: National Aeronautics and Space Administration
 NRL: Navy Research Lab
 OMPS: Ozone Mapping Profiler Suite
 STAR: Center for Satellite Applications and Research